

## REMARKS

The applicant appreciates that the Examiner is in a difficult position in that the rejection currently posed is based on a rejection that was first posed by the Board of Appeals. It is respectfully submitted that the Board of Appeals' decision is erroneous. In this regard, the Board of Appeals basically stated what they thought the law should be, but made no legal citation whatsoever.

To the contrary, a specification that indicates that the claimed feature "may" be used is sufficient under the written description and there is no requirement that the specification must say that the claimed feature "must" be used. In *Snitzer v. Etzel*, 465 F.2d 899 (CCPA 1972) (copy attached), this issue came up in a more extreme case. In *Snitzer*, not only did the specification say that you "may" use a certain chemical, it said you may use one of fourteen chemicals and it turned out that a number of these did not even work. Nonetheless, the Court of Customs and Patent Appeals (the predecessor of the Federal Circuit) declined to find that the written description requirement was violated, stating, among other things that "... we see no reason to hold that which is plainly described not to be described."

In other words, even if I say you may do x, you may do y, or you may do z, I am giving you three examples and each example is sufficient to support a genus claim, and each example is sufficient to support species claims to each one of the three examples.

Most generously, to the Board's rejection, one could say that the specification says you may have a contact list that is a certain way and you may not have such a list. This means in effect that both alternatives could be claimed. In other words, there is written description to support both of them. The requirement that the specification say that each potential species that might be claimed must be used is improper. Just about every patent application that ever is filed gives lots of different alternatives. If giving alternatives or options means that the written description requirement is not complied with as to each and every one of those options, this would result in an absurd result, contrary to the prevailing practice.

Therefore, the rejection should be withdrawn.

Reconsideration of the requirement to amend is also requested on the same grounds.

Respectfully submitted,

Date: December 27, 2010

  
\_\_\_\_\_  
Timothy N. Trop, Reg. No. 28,994  
TROP, PRUNER & HU, P.C.  
1616 South Voss Road, Suite 750  
Houston, TX 77057-2631  
713/468-8880 [Phone]  
713/468-8883 [Fax]

Attorneys for Intel Corporation



LEXSEE 465 F.2D 899

**ELIAS SNITZER v. HOWARD W. ETZEL, HAROLD W. GANDY AND ROBERT J. GINTHER**

**No. 8668**

**United States Court of Customs and Patent Appeals**

**59 C.C.P.A. 1242; 465 F.2d 899; 1972 CCPA LEXIS 244; 175 U.S.P.Q. (BNA) 108**

**Oral argument February 9, 1972  
September 14, 1972**

**PRIOR HISTORY:** [\*\*\*1] Appeal from Board of Patent Interferences, Interference No. 96,025

**DISPOSITION:** Reversed and Remanded.

**COUNSEL:** *Donald R. Dunner* (Lane, Aitken, Dunner & Ziems), attorneys of record, for appellant. *Anthony M. Lorusso, William C. Nealon*, of counsel.

*T. Hayward Brown, Vito J. DiPietro*, attorneys of record for appellees.

**OPINION BY: LANE**

**OPINION**

[\*\*900] Before RICH, Acting Chief Judge, ALMOND, BALDWIN, LANE, Associate Judges, and ROSENSTEIN, Judge, sitting by designation.

[\*1243] LANE, Judge.

This is an appeal from the decision of the Board of patent interferences awarding priority of invention as to the two counts in issue to the junior party Etzel et al. from whose patent, U.S. Patent No. 3,028,009, issued September 25, 1965, on an application filed April 30, 1962, the counts were copied. Appellant is involved on his application <sup>1</sup> filed January 16, 1962, as a continuation-in-part of an application <sup>2</sup> filed October 27,

1961. Neither party took testimony, and the award of priority rested, therefore, on the sufficiency of senior party appellant's disclosure to support the counts. The board held that appellant "has no right to make the counts here involved." We reverse [\*\*\*2] and remand for the reasons explained below.

- 1 Serial No. 168,012.
- 2 Serial No. 148,204.

The counts are directed to the activation of a glass laser with trivalent ytterbium ions. It appears that lasers operate by exciting the electrons of suitable ions to a higher than normal energy level. Excitation is induced by bombarding the ions with light energy, and the essential characteristic of lasers is that the ions spontaneously fluoresce in their excited state. A laser device depends upon a laser-active ion or atom and a laser-active host medium. Appellant states that the earliest laser-active host was gaseous. The experience of workers in the art with gas lasers suggested the need for a solid laser. A ruby laser was the first reported solid laser, and experience with it demonstrated disadvantages attendant the use of a crystalline solid. What followed was the development of lasers using a noncrystalline host medium - glass. Both of the counts at issue in this case are drawn to a laser wherein the host medium is glass and the laser-active ion is trivalent ytterbium.

[\*1244] Count 1 is representative of the counts and reads as follows:

59 C.C.P.A. 1242, \*1244; 465 F.2d 899, \*\*900;  
 1972 CCPA LEXIS 244, \*\*\*2; 175 U.S.P.Q. (BNA) 108

1. In a laser, a [\*\*\*3] solid luminescent sensitive element of optical regenerative configuration and consisting essentially of a clear glass activated with trivalent ytterbium ions to absorb optical pumping energy in the near infrared region at wavelengths of from 914 to 974 mu and exhibit stimulated emission of radiation in the near infrared region in a waveband of about 6 mu width which has its optical center at 1.015 microns.

Count 2 differs only to the extent that the host medium is defined as "clear silicate glass." Count 2 presents no separate [\*\*901] issue to the court, and the counts therefore stand or fall with count 1.

We think the issues on appeal can best be introduced by reproducing the board's findings and conclusions in pertinent part as follows:

1. Etzel et al. (Etzel) assert that Snitzer does not have an adequate disclosure to support the specific limitations of the two counts.

2. Snitzer \* \* \* sets out various types of glass and transparent plastics which may be used in the laser.

3. \* \* \* [He] lists fourteen materials which may be used as active laser ingredients among which is listed trivalent ytterbium.

4. On page 28 of his specification Snitzer states - "While [\*\*\*4] various rare earth and other laser materials have been mentioned, for a more detailed examination of the energy levels of such materials reference is made to D. S. McClure, 'Electronic Spectra of Molecules of Ions in Crystals', Part II (Spectra of Ions in Crystals) Solid State Physics, No. 9, page 399 (1959)."

5. On pages 30 and 31 of his specification Snitzer states that the pumping light source should have its energy concentrated in the absorption bands of the laser material being used.

6. The Snitzer application is quite specific as to the glass neodymium laser.

7. In his brief Snitzer further refers to prior art publications relative to the absorption characteristics of various rare earth metals including ytterbium.

8. Based primarily upon items (1) to (7) above Snitzer asserts that his disclosure is adequate to teach one skilled in this art to make the subject matter of the counts.

9. Etzel asserts that the disclosure of Snitzer is indefinite, ambiguous and speculative because the statement in his specification that the ions may be used separately or in various combinations gives rise to over 87 billion possible variations \* \* \*.

10. Etzel supports the assertion [\*\*\*5] in (9) by referring to an amendment filed April 28, 1966 \* \* \* wherein Snitzer states that trivalent cerium and trivalent terbium (materials listed among the fourteen named in the specification) are not known to lase in a glass host. This amendment refers to an affidavit under Rule 132 by Snitzer filed concurrently.

11. In the above-mentioned affidavit Snitzer as an expert in the field corroborates the statement made in the amendment. Snitzer further states \* \* \*.

The terbium and cerium activated calcium-fluoride host laser material of *patent no. 3,079,347* is not pertinent to a laser using a glass-like host material and simply would not teach the suitability of these rare-earth ions for use in a glass-like host material. In this respect, it is known that the effect of the particular host material on the active laser ingredient makes it quite difficult, if not impossible to predict whether any given activating [\*1245] material or materials suitable for use in a crystalline host material will or will not be suitable in a glass-like host material to attain lasering action. (Emphasis ours.)

12. Etzel has filed under Rule 282, three Snitzer publications dated October 1966, [\*\*\*6] September 1967 and September 1966 respectively to show that even as late as 1966 Snitzer was aware that not all of the ions listed in his patent application were operative laser ingredients in a glass. This assertion seems to be based in part upon the first sentence of the October 1966 article which states - "The IONS which have been made to lase in glass are Nd(3)+, Yb(3)+, Er(3)+, and HO(3)+" [\*\*902] with the implication that the others named in the Snitzer specification are not.

[\*1246] [EDITOR'S NOTE: The page numbers of this document may appear to be out of sequence; however, this pagination accurately reflects the pagination of the original published document.]

#### Conclusions

The Snitzer specification sets forth detailed

59 C.C.P.A. 1242, \*1246; 465 F.2d 899, \*\*902;  
1972 CCPA LEXIS 244, \*\*\*6; 175 U.S.P.Q. (BNA) 108

disclosure as to the neodymium glass laser but no details as to any other combination. It is merely speculation as to what one skilled in the art might do or might not do with these broad generalities. Such speculation does not provide the clear support for claims copied from a patent. [Citation omitted.] We have found nothing in the specification that would lead one to select the ytterbium glass laser of the counts rather [\*\*\*7] than the admittedly inoperative cerium. It is apparent from Snitzer's affidavits and the various publications of record that to build an operative laser requires more disclosure than setting forth two groups of randomly combinable substances together with knowledge existing in the art at the time the purported invention was made. Accordingly we hold that Snitzer has no right to make the counts here involved.

In view of the complexity and unpredictability of the involved art, the fact that some of the ions disclosed by Snitzer have not been made to operate successfully, and the fact that trivalent ytterbium is mentioned but not stressed in the Snitzer specification, the board apparently concluded that one of ordinary skill in the art would not be led to select trivalent ytterbium and appellant may therefore not claim it. Although the board's opinion refers to no statutory basis for denying appellant the right to claim the subject matter of the counts, the parties agree that the description requirement of the first paragraph of 35 USC 112 is the relevant statutory ground. However, the board's opinion speaks of the difficulty of "[building] an operative laser," and the how-to-make [\*\*\*8] and how-to-use requirements of 35 USC 112 are repeatedly alluded to by both appellant and appellees. It is difficult to ascertain which of these several requirements the board focused on and which appellees focus on. We suppose it may be fairly said that appellant is of the view that the first paragraph of § 112 is fully satisfied.

#### [\*1247] Opinion

The thrust of appellees' argument and the board's rationale is that Snitzer's specification disclosure is highly speculative in all respects and misleading to the extent that it reports the suitability of several ions subsequently admitted not to have yet been used successfully. Appellant takes the position that whatever else may be said of the specification, it unequivocally discloses the use of trivalent ytterbium. Since it is uncontested that trivalent ytterbium lasers in a glass medium, that disclosure is sufficient, appellant urges, where the counts

are limited to that species.

[1] We agree with appellant that the use of trivalent ytterbium is clearly described in his specification. Under the reasoning of the recent description requirement cases of this court, there would seem to be little doubt that the literal [\*\*\*9] description of a species provides the requisite legal foundation for claiming that species. See *In re Smith*, 59 CCPA 1025, 458 F.2d 1389, 1394, 173 USPQ 679, 683 (1972), and cases there cited. We think that at least on the facts of this case there is no basis for holding the description of the use of trivalent ytterbium legally insufficient.

[\*1245] [EDITOR'S NOTE: The page numbers of this document may appear to be out of sequence; however, this pagination accurately reflects the pagination of the original published document.]

Appellees insist that a specification as speculative as Snitzer's fails to provide support for the trivalent ytterbium species. Our principal difficulty with the argument is that we fail to see the relevance of the listing of several inoperative species when the species claimed is operative and performs as "speculated." Whether it is labeled "discovery" or "speculation," appellant's conception of trivalent ytterbium as a laser-active material is no less his own, no less original, no less important technologically, and, on this record, earlier than appellees'. His constructive reduction to practice by filing a patent application [\*\*\*10] disclosing the [\*\*903] conception and setting in motion the steps by which the public will be apprised of the discovery is in no way diminished if the conception is characterized as "speculation" or if other related conceptions turn out to be practically or technically unsound.

Appellees assert that the list of ions provided in Snitzer's specification is enormous since the specification states that the fourteen expressly named ions may be used "separately or in various combinations." By computing all the possible combinations of ions, the appellees arrive at a figure in excess of 87 billion for the number of laser-active ions set forth in the Snitzer specification. We think appellees have hopelessly exaggerated the fact of the matter, and we agree with appellant that to approach this case realistically, the specification must be viewed as emphasizing the fourteen named ions. It may be that were boundless speculation evident, a different result would be reached. We find no such situation here, and under these circumstances, we see no reason to hold that which is

59 C.C.P.A. 1242, \*1245; 465 F.2d 899, \*\*903;  
1972 CCPA LEXIS 244, \*\*\*10; 175 U.S.P.Q. (BNA) 108

plainly described not to be described.

Our conclusions with respect to the description of the use of trivalent [\*\*\*11] ytterbium does not dispose of all of the possible issues in this case. It is not clear to us whether the board regarded the specification enabling as to how to make and use a glass laser using trivalent ytterbium assuming that the description is, as we hold, sufficient. Moreover, appellees raise an additional description requirement question which the board's opinion fails to answer. Appellees contend that the terminal [\*1246] portion of the counts is not disclosed in appellant's specification, and indeed, it appears that it is not. The count language referred to reads:

\* \* \* to absorb optical pumping energy in the near infrared region at wavelengths of from 914 to 974 mu and exhibit stimulated emission of radiation in the near infrared region in a waveband of about 6 mu width which has its optical center at 1.015 microns.

[2] Appellant argues that this is not an issue on appeal since the board did not hold that appellant's specification could not support these limitations. The board, in fact, did not respond expressly to appellees' assertion although it was apparently made to the board. However, the board's silence does not remove the issue. Appellees press it upon [\*\*\*12] this court, and having argued it before the board, they may do so without filing a cross-appeal. *Myers v. Freigelman*, 59 CCPA 834, 455 F.2d 596, 604, 172 USPQ 580, 587 (1972); *Kratz v. Calvert*, 29 CCPA 1097, 1103, 129 F.2d 542, 546, 54 USPQ 264, 268 (1942).

[\*1247] [EDITOR'S NOTE: The page numbers of this document may appear to be out of sequence;

however, this pagination accurately reflects the pagination of the original published document.]

We do not wish to resolve the issues mentioned above without the benefit of the board's views thereon, and we accordingly remand the case to the board for a fully focused inquiry. *Myers v. Feigelman*, 59 CCPA 834, 455 F.2d at 604, 172 USPQ at 587; *In re Clark*, 59 CCPA 924, 457 F.2d 1004, 1008, 173 USPQ 359, 362 (1972). On remand the board should consider the sufficiency of appellant's specification with respect to the terminal portion of the counts in light of the recent description requirement cases of this court. The board should also consider the sufficiency of appellant's specification as an enabling disclosure of how to make and use the invention of the counts starting with the premise that the use of trivalent [\*\*\*13] ytterbium as a laser-active ion with a glass host is described as such in appellant's specification. In this connection, see *Martin v. Johnson*, 59 CCPA 769, 454 F.2d 746, 172 USPQ 391 (1972), wherein the description and enablement requirements are distinguished. The board here has so intermingled the several requirements that we are unable to determine the extent to which our holding would affect the board's conclusion of law.

Because we hold the board erred in concluding that appellant's specification fails to describe the use of trivalent ytterbium in a glass laser, and because it appears that that conclusion was at the heart of the board's decision, we reverse [\*\*904] the decision of the board. However, we remand the case to the board for its consideration of the issues set forth above and for action not inconsistent with this court's judgment.